

HIGH FREQUENCY DIFFERENTIAL POWER AMPLIFIER

Farhood Moraveji

ABSTRACT

A differential CMOS amplifier includes two CMOS inverters and biasing circuitry providing feedback loops across the output and input of each inverter. The biasing circuitry provides linear biasing so that the inverters can apply a desired gain to a pair of high frequency input signals (i.e., a differential input signal). The biasing circuitry can include operational amplifiers (op-amps) for providing positive feedback control between the output and input of the inverters. The inputs of the inverters can be regulated by this feedback loop such that their outputs are driven to the reference voltage, thereby forcing the inverters to operate in their linear regions so that non-distorting amplification can be applied to the input AC signals.